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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/598,222

06/29/2007

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EXAMINER

KOSLOW, CAROL M

ART UNIT

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1793

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/598,222	<b>Applicant(s)</b> MINACHI ET AL.	
	<b>Examiner</b> C. Melissa Koslow	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/2/07, 10/23/07</u> .  | 6) <input type="checkbox"/> Other: ____.                          |

Art Unit: 1793

The Japanese language references cited in the Information Disclosure Statements have been considered with respect to the supplied English abstracts.

Claims 13-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 13 and 15 are indefinite since they teaches that the particle size resulting from milling step c; the first and second milling steps of step c and that temperature and time for the heat treating step in claim 15 are all predetermined, which in this case simply means determined beforehand. There is no guidance to one of ordinary skill in the claims as to what these sizes, temperature and time should be nor as to what applicants consider as the inventive sizes, temperature and time of these conditions. Thus claims 13 and 15 are indefinite. It is noted that the specification teaches that the temperature and time of claim 16 should be used in the heat treating step of claim 15 and the specification teaches that the first milling step produces particles having a size of 0.08-0.8 micron and that the second milling step produces particles having a particle size of less than 0.8 micron. Claim 14 is indefinite since it is unclear if the added Sr and/or Ba is additional Sr and Ba, so that there is an excess amount of these elements or if the amount in the first step of claim 13 is less than that required to make the desired ferrite.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re*

Art Unit: 1793

*Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-4 and 6 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 14 and 15 of copending Application No. 10/597,498. Although the conflicting claims are not identical, they are not patentably distinct from each other because the ferrite sintered body resulting from the process claimed in the co-pending application suggests the claimed in this application. This is because the resulting ferrite can contain a mixture of barium and strontium where the amounts are  $(\text{Sr}_{1-x}\text{Ba}_x)$  where  $0 < x < 1$ , which encompasses the claimed ranges of this application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-4 and 6-12 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3, 6 and 7 of copending Application No. 10/558,879. Although the conflicting claims are not identical, they are not patentably distinct from each other because the ferrite sintered body resulting from the process claimed in the co-pending application suggests the claimed in this application. This is because the resulting ferrite can contain a mixture of barium and strontium where the amounts are  $(\text{Sr}_{1-x}\text{Ba}_x)$  where  $0 < x < 1$ , which encompasses the claimed ranges of this application.

Art Unit: 1793

$x\text{Ba}_x$ ) where  $0 < x < 1$ , which encompasses the claimed ranges of this application. The mean grain size of the sintered body of the resulting ferrite is 0.8 micron or less, which overlaps that claimed in this application. Since the compositions and grain sizes overlap, the HcJ, Br and squarness ratio would be expected to overlap the ranges claimed in this application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 4,397,796.

This reference teaches a W-type ferrite having the formula  $\text{MeFe}_2^{2+}\text{Fe}_{16}^{3+}\text{O}_{27}$ , where Me can be Ba and Sr. Thus the reference suggests W-type ferrites having the formula  $(\text{Sr}_{1-x}\text{Ba}_x)\text{Fe}_2^{2+}\text{Fe}_{16}^{3+}\text{O}_{27}$ , where  $0 < x < 1$ . This range overlaps the claimed amounts of barium. Product claims with numerical ranges which overlap prior art ranges were held to have been obvious under 35 USC 103. *In re Wertheim* 191 USPQ 90 (CCPA 1976); *In re Malagari* 182 USPQ 549 (CCPA 1974); *In re Fields* 134 USPQ 242 (CCPA 1962); *In re Nehrenberg* 126 USPQ 383 (CCPA 1960). Also see MPEP 2144.05. The taught ferrite is in the form of a sintered magnet. The reference suggests the claimed ferrite material.

Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 2005/013293.

Art Unit: 1793

U.S. patent application publication 2007/0009767 is the national stage application for WO 2005/013293 and thus is the translation for WO 2005/013293.

This reference teaches ferrite magnetic material having the formula  $\text{MeFe}_a^{2+}\text{Fe}_b^{3+}\text{O}_{27}$ , where a is 1.1-2.4, b is 12.3-16.1 and Me can be Ba and Sr. Thus the reference suggests ferrites having the formula  $(\text{Sr}_{1-x}\text{Ba}_x)\text{Fe}_a^{2+}\text{Fe}_b^{3+}\text{O}_{27}$ , where  $0 < x < 1$ , a is 1.1-2.4 and b is 12.3-16.1. This range overlaps the claimed amounts of barium. Product claims with numerical ranges which overlap prior art ranges were held to have been obvious under 35 USC 103. *In re Wertheim* 191 USPQ 90 (CCPA 1976); *In re Malagari* 182 USPQ 549 (CCPA 1974); *In re Fields* 134 USPQ 242 (CCPA 1962); *In re Nehrenberg* 126 USPQ 383 (CCPA 1960). Also see MPEP 2144.05. The ferrite has an HcJ of 3000Oe or more and a Br of 4500 G or more. These values overlap those claimed. The main phase of the ferrite is a W-type hexagonal ferrite. The material can be in the form of a sintered body with an average grain size of 0.8 micron or less and in the form of a powder. The reference that ferrite powder can be used to form bonded magnets, where the ferrite powder is dispersed in a resin or in film-type layers of a magnetic recording medium. The taught grain size overlaps that claimed. The reference teaches that the ferrite material can further contain  $\text{CaCO}_3$  and  $\text{SiO}_2$  in amounts of 0.3-1.5 wt% and 0.1-1.8 wt%, respectively. The amount of calcium carbonate falls within the claimed range and the amount of silica overlaps that claimed. While the reference does not teach the squariness ratio of the ferrite, one of ordinary skill in the art would expect that it would overlap that claimed since the taught composition overlaps that claimed and the other two claimed properties overlap that claimed, absent any showing to the contrary. The reference teaches the ferrite is produced by calcining a mixture of raw materials of Fe and A, which can be Sr and Ba; pulverizing the calcined mixture; milling the

Art Unit: 1793

pulverized powder in a first milling step; heat treating the milled powder at 600-1200°C for 1 second to 100 hours in an amount containing 10 vol% of oxygen or less; milling the heat treated powder in a second milling step; compacting the milled powder in a magnetic filed and sintering the compacted body. The reference teaches, in paragraph 56-57, that at least one of the A raw material, which can be Ba and/or Sr, can be added after the calcining step but before the pulverizing step. Paragraph 71 teaches that the second milling step can be carried out under more relaxed conditions than the first milling step. The reference suggests the claimed ferrite and material.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa Koslow whose telephone number is (571) 272-1371. The examiner can normally be reached on Monday-Friday from 8:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached at (571) 272-1233.

The fax number for all official communications is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/cmk/  
July 6, 2009

/C. Melissa Koslow/  
Primary Examiner  
Art Unit 1793